Environment Canada
Parks Service

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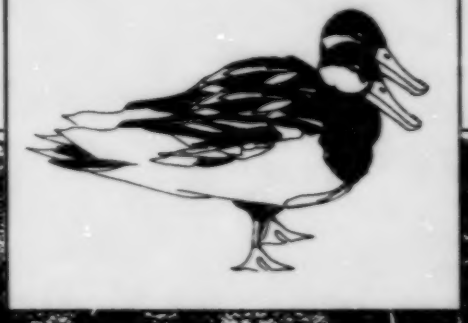
Cave & Basin Wetlands

AREA PLAN



Banff National Park

April 1980

APPROVALS
CAVE AND BASIN WETLANDS AREA PLAN

Approved by:

April 10, 1990

Dave Day — Date
Superintendent
Banff National Park

April 18/90

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91-02726/

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1.0 INTRODUCTION

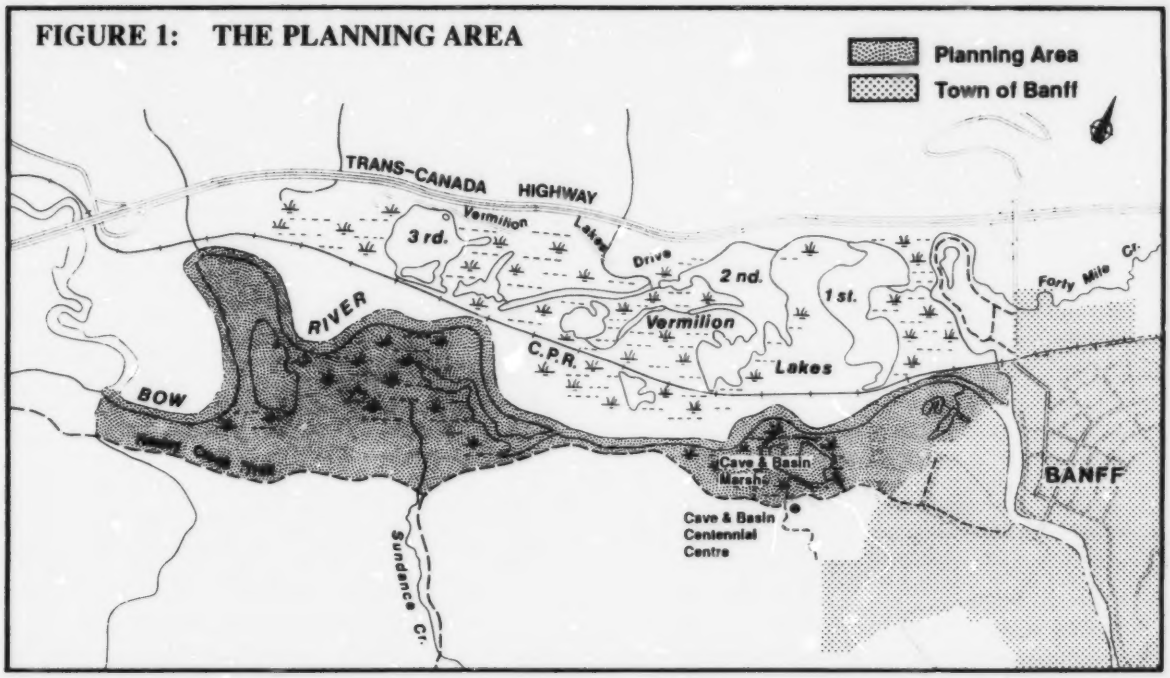
The Cave and Basin Wetlands area (Figure 1) encompasses the Cave and Basin Marsh, as well as other wetlands associated with the Banff Recreation Grounds and the Sundance trail. The boundary follows the town boundary to the east, the Bow River to the north, the Sundance and Healy Creek trails to the south, and joins with the Bow River at the junction with Healy Creek. These wetlands contain a number of important natural resources, as well as being the focus for a considerable amount of visitor activity.

The area's proximity to the Town of Banff, as well as the presence of the Recreation Grounds, Cave and Basin Centennial Centre, the Marsh boardwalk and the Sundance trail, serve to attract large numbers of park visitors and town residents to the area. Along with the Vermilion Lakes, this is one of the few locations adjacent to the town which is available for a wide variety of year-round recreational pursuits. Bicycling, strolling, horseback riding, nature appreciation, fishing and cross-country skiing are some of the key activities that take place here. For town residents, the area offers a quiet, easily accessible escape from motor vehicle traffic and the bustle of town. For some visitors, a visit to the wetlands is an incidental part of a trip to the town or Cave and Basin Centennial Centre, while to others a walk along the Marsh boardwalk or Sundance trail is a highlight of their park visit. In 1988, 479,614 people visited the Cave and Basin Centennial Centre, while over 130,000 people walked the Marsh boardwalk in 1987. With close to 10,000 town residents and 3.5 million annual visitors to the Town of Banff, the potential market for this area is tremendous.

The Cave and Basin Marsh was designated a Zone 1 - Special Preservation area in the Banff Park Management Plan in recognition of the Marsh's significant fauna and flora. Notable resources include:

- A number of endemic invertebrates which thrive in the warm waters of the Marsh;
- The presence of at least five plant species which are rare in Banff National Park;
- Unique habitat for reptiles and amphibians, including the most important snake habitat known in the park; and
- The most productive avifauna habitat in the Lower Bow Valley, in association with the Vermilion Lakes.

FIGURE 1: THE PLANNING AREA



The Cave and Basin Wetlands are located in the Montane Ecoregion of the Bow Valley, which is limited in extent and noted for special protection efforts in the Banff Park Management Plan. The location of these ecologically important wetlands adjacent to the most developed and heavily used part of the park makes protection efforts particularly challenging and critical.

This Area Plan was developed in concert with an area plan for another important wetland area in the Banff townsite region - the Vermilion Lakes area. The two plans should be considered together, since there are a number of common objectives and plan proposals stemming from the shared resource management objectives and visitor use considerations.

Like the Vermilion Lakes, there has been some controversy in recent years about declining water levels in the Cave and Basin Marsh. A large beaver dam was maintaining high water levels for several years prior to 1987, when it failed. Beaver appear to have abandoned the Marsh due to a lack of food, but when they return, water levels will rise again. Fluctuating water levels have reduced the effectiveness of some interpretive displays. Artificially maintaining higher water levels, as requested by some individuals, is not consistent with the Marsh's Zone I status. This Area Plan prescribes a course of action for resource protection and management which is consistent with this status.

A considerable amount of facility development has occurred in this area in recent years, in conjunction with the redevelopment of the Cave and Basin Centennial Centre. These developments include the Centre itself, with its pool, interpretive centre and tea house, as well as the Discovery and Marsh interpretive trails. The Sundance road was closed to motor vehicles when the Centre was redeveloped and is now a popular multiple-use trail for bicycling, strolling, cross-country skiing and horseback riding. The trail also provides access to the Healy Creek, Brewster Creek and Sundance backcountry trails. The Warner and Mackenzie horse concession near the Recreation Grounds offers day and overnight horse trips. The Marsh Loop trail has been upgraded substantially, primarily to better accommodate horse traffic. Due to the high quality of recent facility development, only minor improvements are suggested in this Area Plan.

Visitor orientation, information and interpretation were also substantially upgraded in recent years. The changes to these services proposed in this Area Plan address remaining deficiencies. Improved orientation and linkages with the Town of Banff are emphasized.

2.0 AREA ROLE & MARKET POSITION

This planning area serves a number of important roles. The Zone I area incorporating the Cave and Basin Marsh protects a number of significant natural resources in a largely undisturbed state. The accessibility, high standard trails and interpretive facilities provide exceptional opportunities for park visitors and residents to experience and learn about these resources.

The area also serves as an important transition between the town's urban environment and the park's backcountry, which is available to a broad cross-section of the public. The area offers an easily accessible haven from motor vehicles and the busy town centre, for the pursuit of a variety of leisure activities. A significant number of visitors use the area as an extension of their Cave and Basin Centennial Centre experience. For others, it is a gateway to the park's backcountry.

The area's facilities will continue to be geared to meeting a wide range of needs with a minimum of conflict between different user groups.

3.0 OBJECTIVES AND ACTIONS

3.1 Resource Protection and Management

OBJECTIVES

To allow natural processes to continue without interference, except to offset human influence or to protect unique resources or major man-made facilities.

To encourage research into the area's natural resources and ecology in order to apply well-informed resource protection and management actions.

Actions

- The natural hydrological regime will be allowed to function to the greatest possible extent.
- The Cave and Basin Wetlands will be included in the ecological study proposed for the Vermilion Lakes area (see Vermilion Lakes Area Plan), to more comprehensively define the wetlands' natural ecology and define appropriate resource management actions. This study requirement will be reflected in the Park Conservation Plan.
- In the interim, actions affecting water levels will be taken only to protect built facilities (horse barns, residences) during flood conditions.
- Ecological indicators such as wildlife populations and vegetation succession will be closely monitored.
- Future facility development will be carried out in a manner which does not significantly interfere with natural processes.

Discussion

A return to a more natural hydrological regime will have positive implications for vegetation and wildlife in the area. The area may be less aesthetically pleasing during times of low water, but native species (including the Banff long-nose dace) are adapted to natural water level fluctuations.

OBJECTIVE

To strictly limit additional facility development in the wetland environment.

Discussion

The Cave and Basin Wetlands area is well developed, with excellent opportunities for visitors to experience the wetland environment on the Marsh boardwalk. The Vermilion Lakes, too, have a relatively high level of facility development. The wetlands to the west of the Cave and Basin Marsh are therefore the only wetlands in the region which remain essentially free from built facilities. Once the proposals in this Area Plan and the Vermilion Lakes Area Plan are implemented, facility development in the wetland environment should be avoided.

3.2 Recreational Activities

OBJECTIVE

To support visitors activities which:

a) **Are consistent with the area's role and market position;**

b) **Are non-motorized;**

c) **Do not cause unacceptable environmental impacts;**

d) **Do not result in unacceptable conflicts with other users; and**

e) **Encourage first-hand experience of the area's heritage resources.**

Discussion

There are few problems associated with the recreational activities currently being carried out in the Cave and Basin Wetlands area. Use will be monitored and necessary management actions taken should resource impairment or visitor conflicts occur. The area will be managed to provide a wide range of opportunities with a minimum of conflict. The only motorized vehicles to be permitted beyond the Cave and Basin parking lot are Canadian Parks Service and Warner and Mackenzie service vehicles.

OBJECTIVE

To provide opportunities for year-round use.

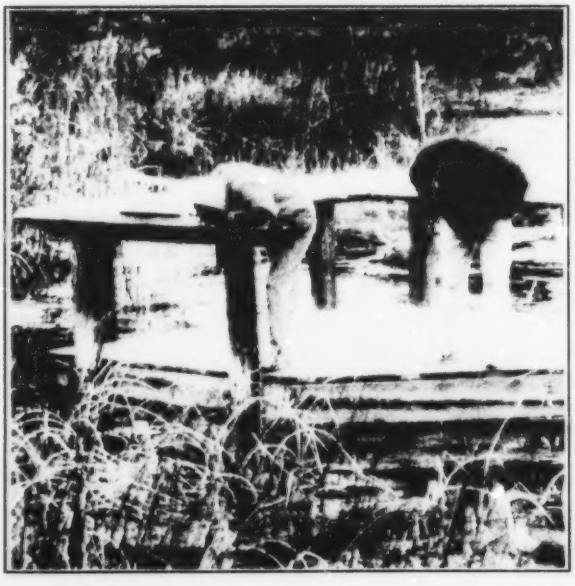
Actions

- Winter access to the Marsh trail will be supported, as well as use of the Sundance trail for cross-country skiing. Support services (e.g. washrooms, signs) will continue to be provided for winter use.
- Seasonally relevant panels will be developed for the Cave and Basin Marsh trail.

Discussion

The Cave and Basin Wetlands area is one of the few places adjacent to the Town of Banff which provides interesting and accessible outdoor winter opportunities. The Marsh trail retains exceptional winter nature observation opportunities due to the effects of warm water on the marsh environment. Not all the interpretive displays, however, remain relevant during the winter months.

The Sundance road is popular for cross-country skiing, despite somewhat unpredictable snow conditions. Counts for December 20, 1988 to January 15, 1989, for example, indicate an average of 160 skiers used the road each day. Cross-country skiers are well served by the park's nordic skiing brochure, tracksetting and the winter trailhead stand.



OBJECTIVE

To encourage more use of the Cave and Basin Wetlands area by Cave and Basin Centennial Centre Visitors.

Actions

- An orientation panel will be provided which is obvious to visitors heading to the Cave and Basin Centennial Centre from the parking lot. The panel will indicate trail connections from the Centre (see also Section 3.4 - Communication Services).
- Media in the Cave and Basin Centennial Centre will provide more information on opportunities in the surrounding area (e.g. the Cave and Basin Marsh and Sundance trail).

Discussion

The current orientation display in the gazebo near the parking lot is not located in the most obvious location for visitors. Casual observations show that most visitors do not enter the gazebo and do not therefore obtain an overview of area opportunities. By placing an orientation display in an obvious location adjacent to the parking lot, more visitors would be aware of the heritage appreciation and recreational opportunities available in this area, aside from the Cave and Basin Centennial Centre.

With 479,614 visitors in 1988 and increasing visitation, the Cave and Basin Centennial Centre is one of Banff's most popular visitor facilities. The Centre provides an excellent overview of the Canadian National Park system, but most visitors do not take the opportunity to experience first-hand some of the natural resources adjacent to the Centre. Enhanced information about these opportunities in the Cave and Basin Centennial Centre, in conjunction with improved trail orientation outside the Centre, will help to raise visitors' awareness of the Marsh and Sundance trails.

OBJECTIVE

To more clearly identify barrier-free access opportunities in the area

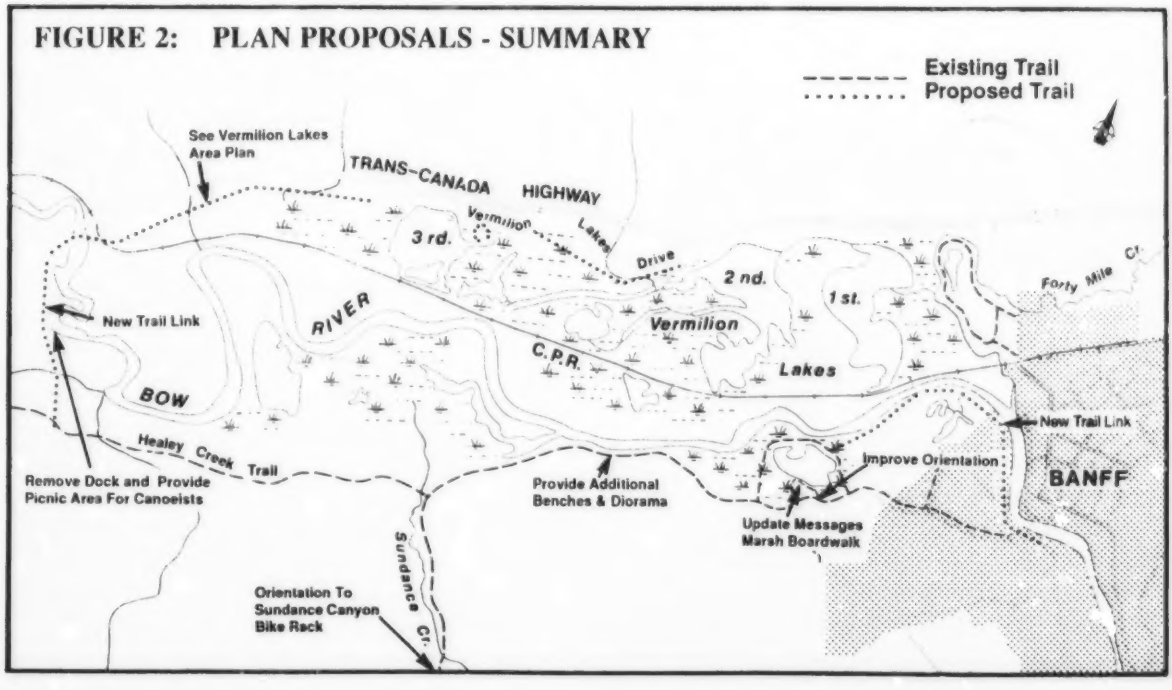
Action

- Strategies for improving this information will be included in the general park strategy for improving access to disabled persons.

Discussion

Most facilities in this area, including the Cave and Basin Centennial Centre, the Marsh trail and the Sundance trail, are accessible to disabled visitors. However, information to disabled visitors about available opportunities could be improved, as well as the need for assistance in some locations.

FIGURE 2: PLAN PROPOSALS - SUMMARY



OBJECTIVE

To continue to provide high quality multiple-use trails, while maintaining the maximum possible separation between horse traffic and other users.

Actions

- The Sundance trail will continue to serve as a multiple-use trail for hikers, bicyclists, horse users and cross-country skiers.
- The Marsh Loop trail will continue to serve as an important trail for horse users, while meeting the needs of trail bicyclists and hikers.
- Horse trails leading from the Sundance trail will be better defined to eliminate duplication and random shortcuts.

Discussion

Conflicts between different visitor groups in this area are kept to a minimum through the development of several separate horse trails and the wide tread of the Sundance trail. This will continue to be the case. Horse traffic will receive a priority on the Marsh loop trail, the trails leading from the horse barns and Sundance trail, and the trail parallel to the Sundance trail, while the Sundance trail will be primarily for visitors on foot or bicycle.

The horse trail network leading from the Sundance trail needs to be examined and clearly defined, since there are some redundant trail sections and unnecessary shortcuts.

3.3 Visitor Facilities

OBJECTIVE

To improve pedestrian and bicycle trail linkages with the Town of Banff.

Action

- A pedestrian and bicycle trail will be developed along the Bow River, in response to development of a pedestrian bridge across the river within the town boundary. First priority will be given to improving orientation and trail signs along the existing pedestrian access route from the town (see Section 3.4 - Communication Services).

Discussion

The draft Banff Municipal Plan (1989) supports the development of a pedestrian bridge across the Bow River and a pedestrian loop trail system along the riverbank near the Recreation Grounds. Should construction of this bridge proceed, trail connections between the town and the Cave and Basin Wetlands could be much improved by completing the trail along the Bow River to link with the existing Marsh Loop trail. Bridge construction would create a pressure for such a trail that could not be ignored. Formal trail development is preferable from a resource protection standpoint to the random routes that would no doubt result from the increased accessibility.

Any new trail development in this location would be for pedestrians and trail bicyclists, but not horses, due to the potential for conflict on a narrow trail, resource protection concerns along the riverbank, and the variety of horse trails already in the area.

Bridge and related trail construction is viewed as a long-term project due to the associated costs and other priorities. In the interim, much can be done to improve awareness of and orientation to the existing trail linkage from the Town of Banff (see Section 3.4 - Communication Services).

OBJECTIVE

To enhance longer distance pleasure bicycling and day hiking opportunities in the vicinity of the Town of Banff.

Action

- A trail connection will be developed to link the Sundance Road and Healy Creek trail with Vermilion Lakes Drive, forming a loop trail (see Vermilion Lakes Area Plan).

Discussion

Hiking and bicycling opportunities in the Banff townsite region currently consist of a few dead-end trails, where the user is obliged to return on the same trail. Loops are known to be preferred over this type of trail. Constructing a 2 km trail link between the Healy Creek trail and the Bow Valley Parkway intersection would result in a 16.5 km loop linking the Cave and Basin Wetlands area, Vermilion Lakes and the Town of Banff (Figure 2). The loop trail would offer a unique wetland/montane

forest experience over relatively easy terrain. It would appeal to the growing number of resident and visitor trail bicyclists and joggers, as well as those seeking a gentle, longer distance hiking opportunity leaving directly from the Town of Banff. Detailed route location and environmental concerns require further investigation, particularly with regards to crossing the Bow River.

OBJECTIVE

To improve opportunities for river users.

Action

- The dock at the old steamboat turnaround on the Bow River will be removed and picnic facilities will be upgraded to a suitable standard.

Discussion

This portion of the Bow River is popular with canoeists, and provides a unique perspective on the riverine environment. The old dock and picnic area are currently used by canoeists, despite their poor condition. The dock is not needed since there are several suitable locations to take out canoes at this location. Replacing the substandard picnic tables, pit toilet and fire ring would provide a superior opportunity for this user group.

OBJECTIVE

To provide additional, low-key facilities (e.g. benches and bicycle racks) for area visitors undertaking leisure activities.

Actions

- Additional benches will be provided at scenic locations along the Sundance trail.
- A bicycle rack will be provided at the terminus of the Sundance trail.

Discussion

A large proportion of the area's visitors are undertaking leisure activities - strolling on the Marsh boardwalk, pleasure bicycling or strolling casually down the Sundance road. There are few opportunities for visitors to rest along the way. Providing more benches would encourage visitors to linger and enjoy the area's scenery.

A bicycle rack is needed at the end of the Sundance road so pleasure bicyclists can securely store their bicycles before continuing on to hike the Sundance Canyon trail.

3.4 Communication Services

OBJECTIVE

To increase awareness among town residents and visitors, as well as Cave and Basin Centennial Centre visitors, of opportunities for use and enjoyment of the Cave and Basin Wetlands.

Actions

- Awareness material for the Cave and Basin Centennial Centre, as well as the "Drives and Hikes" brochure will be modified to reflect the area's market position, and the links between the Cave and Basin Centennial Centre and other area opportunities.
- Staff at the town Information Centre will be directed to promote the area as an easily accessible escape from the town, where a wide range of non-motorized recreational and heritage appreciation activities can be pursued. The same image will be promoted through other off-site media such as the Mountain Guide, Cable television and Information Centre A/V programs.
- Trail orientation signs will be added between the Town of Banff and the Cave and Basin Wetlands.
- Media in the Cave and Basin Centennial Centre will include more information on the adjacent wetlands environment and associated visitor opportunities (see Section 3.2 - Recreational Activities).

Discussion

Although the Cave and Basin Centennial Centre is generally well publicized in the Town of Banff, little information is provided on other area opportunities. The area should be presented as a package of first-class heritage appreciation and leisure recreation opportunities adjacent to the Town of Banff, consistent with the area's market position.

OBJECTIVE

To improve orientation to the area's opportunities.

Actions

- Simple "You Are Here" signs will be installed at all trail junctions between the Town of Banff and the Cave and Basin area to direct pedestrians and bicyclists (e.g. at each end of the Bow River bridge, Marsh Loop trail junctions, and along the Sundance trail).
- New trail orientation signs, indicating all trail linkages and information on the multiple use of trails, will be provided in an obvious location at the beginning of the main trail leading from the Cave and Basin parking lot (see also Section 3.2 - Recreational Activities) and at each end of the Bow River bridge.
- Orientation to the Sundance Canyon trail will be provided at the end of the Sundance road.

Discussion

Although numerous trail linkages and a variety of opportunities are provided in this area, they are not always apparent to visitors. The high quality trail between the Town of Banff and the Cave and Basin area, for example, is not signed so visitors are discouraged from using it. Clear signs are important in an area such as this, which is used by a broad cross-section of the public, including many who seek a high level of security in their park experience.

OBJECTIVES

To continue to concentrate interpretation media in the vicinity of the Cave and Basin Centennial Centre.

To update interpretation messages provided on the Marsh boardwalk.

Actions

- New media along the Sundance trail will be limited to a diorama showing obvious landscape features visible from the trail
- New interpretation media will be added to the Marsh boardwalk to explain the naturally fluctuating water levels in the Marsh and to provide seasonally relevant messages for visitor use (see also Section 3.2 - Recreational Activities)

Discussion

The Cave and Basin Centennial Centre and associated interpretive trails provide the highest concentration of interpretation facilities and services in Banff National Park. Few additional facilities are required. Opportunities exist, however, to locate and name major landscape features for Sundance road users in response to requests for this type of information. New media are also required on the Marsh boardwalk to explain the readily apparent effects of water level fluctuations (e.g. extensive mudflats and low water levels at the present time) to visitors, as well as the management decision not to interfere with the natural hydrological regime. The Marsh trail provides excellent winter nature observation opportunities; however, the current media does not discuss the Marsh in the winter.

OBJECTIVE

To make park messages more readily available to horse users and trail bicyclists using the area.

Actions

- A handout outlining trail bicycle etiquette will be developed for distribution at rental outlets in the Town of Banff. Trail bicycle etiquette will also be discussed in periodic articles in the *Banff Crag and Canyon*, for the benefit of town residents.
- Cave and Basin Centennial Centre brochures will be made available at the horse concession and bicycle rental outlets.

Discussion

These two groups are not as easy as other visitors to reach with the communication services currently offered in the area. Efforts aimed particularly at these users are required so that they become more aware of the special nature of the area's resources and means of avoiding conflicts with other users. The park's Interpretation Service will continue to offer related training to all park concessionnaires, including staff of the horse concession.

4.0 IMPLEMENTATION STRATEGY

A list of the capital and O&M projects involved in implementing this Area Plan is presented below, along with responsible sub-activities. Two projects (ecological study and Vermilion Lakes and Healy Creek trail linkage) are described in more detail in the Vermilion Lakes Area Plan.

Project	Responsibility
Ecological study	SEE VERMILION LAKES AREA PLAN
Parking lot orientation panel	Visitor Services/Interpretation
Define horse trails	Visitor Services/Resource Conservation
Bow River trail development	Visitor Services/Architecture & Engineering
Healy-Vermilion Lakes trail	SEE VERMILION LAKES AREA PLAN
Upgrade Bow River picnic area and remove dock	Visitor Services/Architecture & Engineering
Provide more benches alongSundance trail	Visitor Services/Architecture & Engineering
Bicycle rack at end of Sundance trail	Visitor Services
Trail orientation signs between town and Cave and Basin Centre	Visitor Services
Orientation signs at trail junctions along Sundance trail	Visitor Services
Sundance Canyon trail orientation	Visitor Services/Interpretation
New media for Marsh boardwalk	Interpretation
Trail bicycle etiquette handout	Visitor Services